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CLAIMS:

1. An installation for providing a concentrate burner, that is adapted on top of a reaction shaft of a suspension smelting furnace, with continuous and constant feed of fine-grained matter, comprising
a bin having an inlet and an outlet for the fine-grained matter;
a feed control unit for providing the feed of the fine-grained matter with accurately controlled feed rate; and
a pneumatic conveyor adapted to transport the fine-grained matter up to the top level of the suspension smelting furnace;
characterized in that,
the outlet of the bin for the fine-grained matter locates essentially at a lower level than the top of the reaction shaft;
the feed control unit is adapted to receive the fine-grained matter from the outlet of the bin and to provide the pneumatic conveyor with the feed of the fine-grained matter;
the pneumatic conveyor is adapted to provide the concentrate burner with a feed rate that equals with the feed rate provided by the feed control unit; and
the concentrate burner is a sleeve type burner or a diffusion type burner.

2. The installation of claim 1, characterized in that the fine-grained matter comprises metal concentrate.

3. The installation of claim 1, characterized in that the fine-grained matter comprises metal concentrate and fluxing agent.

4. The installation of claim 1, characterized in that the fine-grained matter comprises metal concentrate, fluxing agent and flue dust.

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5. The installation of claim 1, characterized in that it comprises a first bin for a dried mixture of metal concentrate and fluxing agent, a second bin for flue dust, a first feed rate controller for the mixture of metal concentrate and fluxing agent and a second feed rate controller for the flue dust.

6. The installation of claims 1 – 5, characterized in that the pneumatic conveyor is a dilute-phase pneumatic conveyor.

7. The installation of claims 1 – 5, characterized in that the pneumatic conveyor is a dense-phase pneumatic conveyor.

8. The installation of claims 1 – 5, characterized in that the pneumatic conveyor is an air-lift type pneumatic conveyor and the air-lift is provided with an expansion vessel adapted to feed the particulate matter into the burner of the suspension smelting furnace via an air-lock feeder and an air-slide conveyor.

9. The installation of claims 1 – 5, characterized in that the feed control unit is a loss-in-weight controller and the pneumatic conveyor is a dilute-phase pneumatic conveyor.

10. The installation of claims 1 – 5, characterized in that the feed control unit is a loss-in-weight controller and the pneumatic conveyor is an air-lift type pneumatic conveyor.

11. A method of providing a concentrate burner such as a sleeve type burner or a diffusion type burner, that is adapted on top of a reaction shaft of a suspension smelting furnace, with uninterrupted and controlled feed of fine-grained matter comprising metal concentrate, **characterized** in that the method comprises steps of

feeding fine-grained matter in a bin having an outlet at a lower level than

the burner;

forming and sustaining in the bin a storage of the fine-grained matter corresponding with at least one hours feed of the suspension smelting furnace;

feeding fine-grained matter in a feed rate controller unit that provides the pneumatic controller with an uninterrupted and controlled feed of the fine-grained matter; and

conveying the matter with the pneumatic conveyor in the burner of the suspension smelting furnace.

12. The method of claim 11, characterized in that the feed rate controller operates according to the principle of loss-in weight - type controller.

13. The method of claim 11, characterized in that it further comprises a step of feeding flue dust into the pneumatic conveyor.